

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: JENNESS POND	Lake Area (ha): 94.09
Town: NORTHWOOD	Maximum depth (m): 8.5
County: Rockingham	Mean depth (m): 2.7
River Basin: Merrimack	Volume (m ³): 2535500
Latitude: 43°15'25" N	Relative depth: 0.8
Longitude: 71°15'00" W	Shore configuration: 1.77
Elevation (ft): 657	Areal water load (m/yr): 4.36
Shore length (m): 6100	Flushing rate (yr ⁻¹): 1.60
Watershed area (ha): 743.3	P retention coeff.: 0.68
% watershed ponded: 0.0	Lake type: natural

BIOLOGICAL:

13 January 1992

2 July 1991

DOM. PHYTOPLANKTON (% TOTAL)	#1	DINOBRYON 50%	SYNURA 35%
	#2	ASTERIONELLA 50%	ASTERIONELLA 30%
	#3		DINOBRYON 10%
PHYTOPLANKTON ABUNDANCE (cells/mL)			380
CHLOROPHYLL-A (µg/L)			5.31
DOM. ZOOPLANKTON (% TOTAL)	#1	KERATELLA 41%	KELLICOTTIA 67%
	#2	CILIATE SPP. 41%	NAUPLIUS LARVAE 17%
	#3		
ROTIFERS/LITER		76	245
MICROCRUSTACEA/LITER		<1	81
ZOOPLANKTON ABUNDANCE (#/L)		131	326
VASCULAR PLANT ABUNDANCE			Common
SECCHI DISK TRANSPARENCY (m)			4.0
BOTTOM DISSOLVED OXYGEN (mg/L)		9.1	0.2
BACTERIA (fecal col., #/100 ml) #1			< 10
	#2		< 10
	#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None
Hypolimnion volume (m³): None
Anoxic volume (m³): 700

CHEMICAL:

Lake: JENNESS POND

Town: NORTHWOOD

	13 January 1992		2 July 1991		
DEPTH (m)	3.0	6.0	2.0		6.0
pH (units)	6.2	5.9	6.7		6.5
A.N.C. (Alkalinity)	1.7	1.9	1.8		1.7
NITRATE NITROGEN	0.03	0.05	< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN					
TOTAL PHOSPHORUS	0.004	0.006	0.006		0.004
CONDUCTIVITY (μ mhos/cm)	69.5	74.0	70.1		71.2
APPARENT COLOR (cpu)	8	8	8		7
MAGNESIUM			0.72		
CALCIUM			2.2		
SODIUM			8.3		
POTASSIUM			0.86		
CHLORIDE	12	14	13		13
SULFATE	8	8	5		5
TN : TP					
CALCITE SATURATION INDEX			4.0		

All results in mg/L unless indicated otherwise

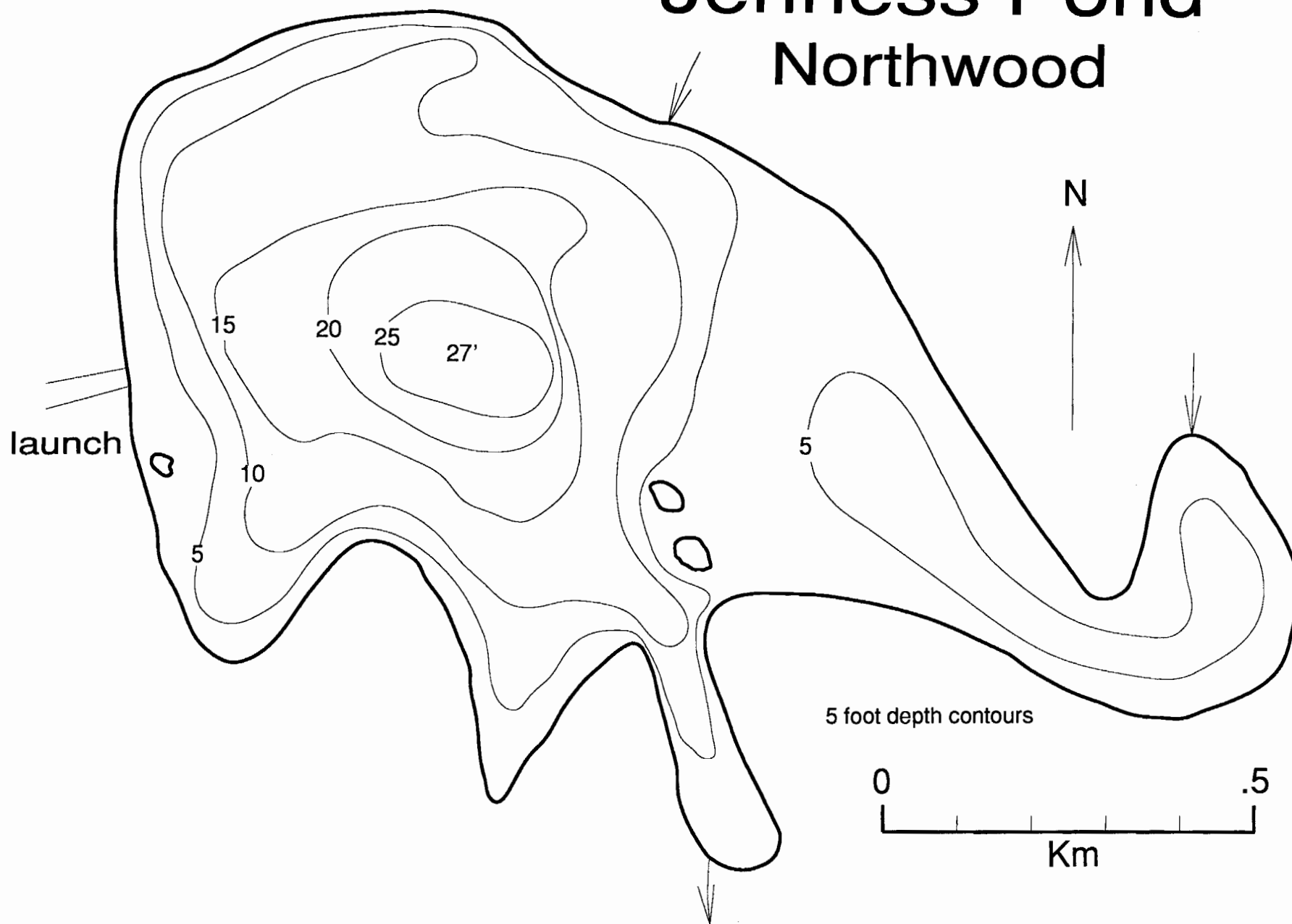
TROPHIC CLASSIFICATION: 1991

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	2	3	1	6	Meso.

COMMENTS:

1. This pond was previously surveyed and classified in 1979. The pond moved from an oligotrophic rating in 1979 to a mesotrophic rating in 1991. The chlorophyll increased from less than one to more than five milligrams per cubic meter during this time, and the water clarity dropped from 7 meters to 4 meters. These are significant changes if real, but may also be due to yearly or seasonal variations. Only participation in a long-term lay monitoring program can document the meaning of these changes.
2. *Schroederia* (15%) was the dominant genus of wholewater plankton. Greens (55%) and diatoms (20%) were the dominant classes.

Jenness Pond Northwood



111-112

[illegible]

A map of the Northwood area, showing the coastline and surrounding land. The map is labeled "Northwood" at the top. A north arrow points upwards, and a scale bar indicates 0 to 0.5 Km. Sampling locations are marked with letters (J, S, P, E, g, b, Y, L, N, E, S, P, J, L, S, b, g, e, L, E) and numbers (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100). The letters represent different species or groups, and the numbers represent individual sampling points. The map shows a complex coastline with several inlets and a large body of water to the north. Arrows indicate the locations of the sampling points.

launch

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